

# Think Big

## Global Citizenship Marine Environment

### Lesson Plan



**Learning Objective:**  
Understand the size of large marine animals and why they grow so big

**Learning Methodology:**  
Art, discussions, Audio visual presentation, guided practice

**Curriculum Links:**  
Language, Mathematics, Art, Physical Education, Social, Environmental and Scientific Education

**Preparation:**  
Print Appendix One (Animal cards)

**Target Age:**  
2<sup>nd</sup>- 6<sup>th</sup> class

**Time:**  
One hour

### Introduction

The largest animals on Planet Earth live in our Oceans. The Blue Whale, the Colossal Squid, and the Whale Shark are all examples of huge creatures found in our seas. But why are the largest animals in the oceans much bigger than the largest animals on land? Scientists have come up with two theories.

The first is all about temperature. It is too difficult for warm-blooded animals (mammals) to survive in chilly water, unless they are huge. The amount of heat your body can make depends on how many cells you have, and small animals simply don't have enough to replace the heat they lose through their skin to the water. A bigger body, with lots of heat making cells, and insulating blubber is ideal. That means in the cool sea, it is better to be bigger.

There is also the issue of weight. Marine animals can carry around a bit more weight as they have the buoyancy in water to help them lighten the load. As for land mammals, like elephants or tigers, they can only reach a certain size before their weight would become too heavy for their legs to carry, and they would collapse.

### Energiser Activity

#### Animals in Training

This is a fun activity that gives the students a chance to move around and get energised! It also introduces the theme of marine animals and allows the students to think about different types of animals and their body shapes. This activity does not require any equipment and can be performed in a classroom or outside.

Complete each exercise for 20 seconds.

1. **Starfish Jumps** – Jump up and down spreading your arms and legs wide (jumping jacks).
2. **Polar Bear Walk**- Place your hands and feet on the floor, with your hips high. Move to the left, then back to the right. Repeat.
3. **Crab**- Sit down with your hands by your side and fingers pointed towards your feet. Push up on your hands and feet so your body is like a table. Keep hips high.
4. **Penguin** – Squat and take a step to the left, and then to the right. Repeat.
5. **Breaching Whale**- Jump up as high as you can.
6. **Anemone** – Stand up and wave your arms in the air like tentacles in water.

## Part One: Whales

Watch the [BBC Earth Kids video about Whales](#)

After watching the video, ask your students the following questions:

1. What is the biggest animal in the world? *A Blue Whale.*
2. True or false: The Blue Whales tongue is heavier than an elephant? *True.*
3. Whales are a type of fish? True or false? *False, they are mammals, just like us!*
4. Why can marine animals grow bigger than those on land? *The water can give more support to animals' bodies than air can, allowing them to move freely and not be weighed down.*
5. There are two major groups of whales. What's the difference between the two groups? *One group have teeth, the other type has a hairy comb like structure (baleen) in their mouth to help them eat plankton.*
6. What is the name of the whale with a unicorn like horn on their head? *Narwhal.*

Now that you have learned about whales, and how they can grow to such enormous lengths, let's visualise this!

## Part Two: Actual Size Art

For this activity you will need:

- Measuring tape(s)
- Chalk (lots!)
- Picture cards (see Appendix 1)

Decide which animal(s) you would like to draw. You can either split the class into groups and draw different animals or work together to draw the animals together.

Here is a list of large marine animals and their lengths:

- Blue Whale – 29m
- Sperm Whale- 16m
- Basking Shark – 12m
- Colossal Squid – 14m
- Walrus – 3.6m
- Tuna – 1.9m

Once you have chosen an animal, ask one student to hold the tape measure by the tape case. Direct a second student to walk out with the tape measure to the length of your chosen animal. Ensure both students hold on tight and do not let go, to avoid the tape closing quickly and causing injury. Once the animal's length has been measured, ask a third student to mark the length using chalk.

Some animals are so large that you may have to use your measuring tape a few times (i.e. Measure and mark, then measure and mark again). This is great visual maths.

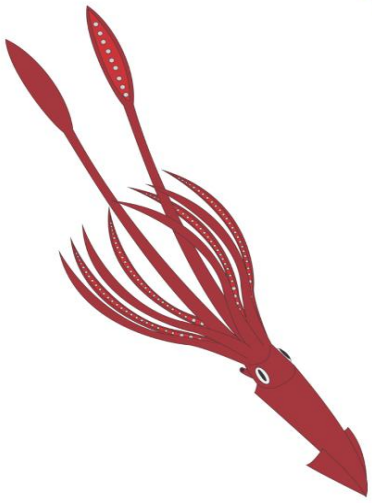
Once you have the length of the animal drawn, you can now create the animals body shape. Refer to the animal flash cards to remind students of the body shapes of the animals. The drawings can be as detailed as you like (you could add fins, or include features on the animal's face, or colour it in).

When the drawings are complete, discuss the animals size. To facilitate this, ask students to stand at opposite ends of animals. You could also ask students to lie down beside the animal and take a photo to show how they size up to the animal.

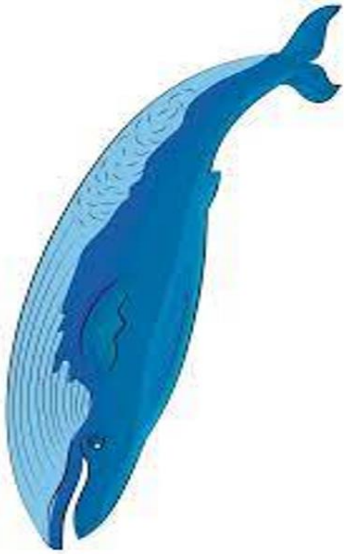
Examples of discussion points:

- Has anyone ever seen one of these animals in real life?
- How would you feel if you were swimming in the sea and one of these creatures was in the water too?
- These animals are all at the top of the food chain. What does that mean?
- Would marine litter affect these animals? How?

## Appendix One



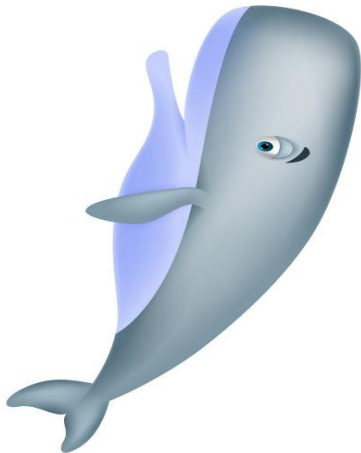
**Colossal Squid 14m**  
**Máthair Shúigh Mhór**



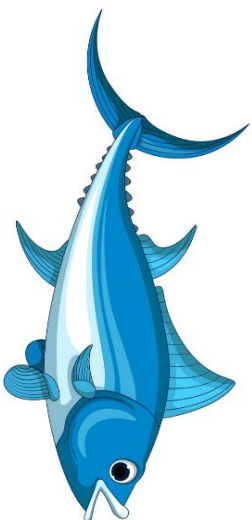
**Blue Whale 29m**  
**Míol Mór Gorm**



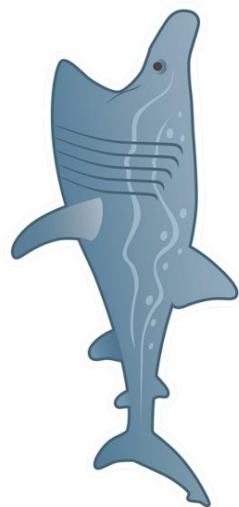
**Walrus 3.6m**  
**Rosuait**



**Sperm Whale 16m**  
**Caiséalóid**



**Tuna 1.9m**  
**Tuinnín**



**Basking Shark 12m**  
**Cearbhán**